output a second haptic effect configured to simulate the second texture if the user interaction is associated with the second section of the display area.

21. The method of claim **20**, further comprising receiving the display signal and outputting an image based at least in part on the display signal.

22. The method of claim **21**, wherein the first haptic effect and the second haptic effect are output on a surface of the display.

23. A system comprising:

an actuator configured to receive a haptic signal and output a haptic effect configured to simulate a texture based at least in part on the haptic signal;

a touch-sensitive interface configured to detect a user interaction and output a interface signal associated with the user interaction;

a processor in communication with the actuator and the touch-sensitive interface, the processor configured to:

receive the interface signal;

receive a display signal comprising a plurality of pixels defining a display area;

determine a first texture based at least in part on the display signal and the interface signal, the first texture associated with a first group of pixels defining a first section of the display area;

determine a second texture based at least in part on the display signal and the interface signal, the second texture associated with a second group of pixels defining a second section of the display area; and

transmit a haptic signal configured to cause the actuator to:

output a first haptic effect configured to simulate the first texture if the user interaction is associated with the first section of the display area, and

output a second haptic effect configured to simulate the second texture if the user interaction is associated with the second section of the display area; and

a display configured to receive the display signal and output an image based at least in part on the display signal, and wherein the first haptic effect and the second haptic effect are output on a surface of the display.

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